

09/292186

IR-1609 (2-1941)

P-CHANNEL TRENCH MOSFET STRUCTURE

ABSTRACT OF THE DISCLOSURE

A low voltage P-channel power MOSFET using trench technology has an epitaxially deposited constant concentration N channel region adjacent the side walls of a plurality of trenches. The constant concentration channel region is deposited atop a P⁺ substrate and receives P⁺ source regions at the tops of each trench. The source contact is connected to both source and channel regions for a unidirectional conduction device, or only to the source regions for a bidirectional device.